



March 26, 2021

### SPOTLIGHT ///

The Center for Genetics and Society stands in solidarity with Asian American and Pacific Islander communities and condemns the recent violent attacks and hate here in the Bay Area, in Georgia, and beyond. We will continue to oppose misogyny, racist scapegoating, and white supremacy and work in solidarity to build a fair and inclusive society for all.

# ANNOUNCEMENTS



## Perfect, a new play about genetic engineering

Jonathan Luskin's *Perfect* takes a provocative dive into the brave new world of genetic engineering. Three interwoven stories, six actors, and ten characters explore the boundless desire for flawless children and the impossibility of objectively defining what that means. The play will be presented in two live virtual performances on Saturday, May 15, and Sunday, May 16, at 7:00PM, PDT. Register now for your free ticket.

## **COMMENTARY**



# Things We Are (Nearly, Perhaps) Able to Do with Human Embryos

Pete Shanks, Biopolitical Times | 03.23.2021

At least five separate studies involving embryo research in humans and mice are raising fresh versions of old questions about science, ethics, and regulation. They involve blastocyst-like structures dubbed blastoids and a major step toward artificial wombs, and presage a serious challenge to the 14-day rule for developing human embryos in vitro.



# Dominic Cummings, Stephen Hsu, and Eugenics in the House

Pete Shanks, Biopolitical Times | 03.20.2021 In testimony before the UK Parliament's science and technology committee, Dominic Cummings implausibly denied knowing what eugenics is. He also proposed Stephen Hsu (co-founder of Genomic Prediction, which purports to identify polygenic traits such as intelligence in embryos) to head the new Advanced Research & Invention Agency.

### WHAT WE'RE READING

EMBRYO RESEARCH | GENOME EDITING | GENOMICS | ASSISTED REPRODUCTION |
STEM CELLS | VARIOUS

#### **EMBRYO RESEARCH**

# Scientists Create Living Entities In The Lab That Closely Resemble Human Embryos

Rob Stein, NPR | 03.17.2021

The goal of the experiments is to gain important insights into early human development, to find new ways to prevent birth defects and miscarriages, and to treat fertility problems. But the research raises sensitive moral and ethical concerns.

# A mouse embryo has been grown in an artificial womb—humans could be next

Antonio Regalado, MIT Technology Review | 03.17.2021

Researchers are growing embryos outside the womb for longer than has ever been possible. "This sets the stage for other species," says Jacob Hanna, a developmental biologist at the Weizmann Institute of Science, who led the research team. "I hope that it will allow scientists to grow human embryos until week five."

### Scientists Grow Mouse Embryos in a Mechanical Womb

Gina Kolata, The New York Times | 03.17.2021

The experiments, at the Weizmann Institute of Science in Israel, were meant to help scientists understand how mammals develop and how gene mutations, nutrients, and environmental conditions may affect the fetus. But the work may one day raise profound questions about whether other animals, even humans, should or could be cultured in artificial wombs.

# Scientists plan to drop the 14-day embryo rule, a key limit on stem cell research

Antonio Regalado, MIT Technology Review | 03.16.2021

The International Society for Stem Cell Research has reportedly prepared draft recommendations to move such research out of a category of "prohibited" scientific activities and into a class of research that can be permitted after ethics review, depending on national regulations.

#### **GENOME EDITING**

### The Threat That CRISPR Poses to Disabled People

**Sandy Sufian**, *Brink* | 03.15.2021

The disabled community is becoming increasingly concerned about the possibility of using CRISPR to eliminate so-called defective genes in the embryo. This raises profound questions about what it means to be disabled and the need to embrace diversity.

#### Can China's New Criminal Law Deter the Next He Jiankui?

Shao Bowen, Sixth Tone | 03.12.2021

A new section in the law dedicated to "illegal medical practices" bans "the implantation of genetically edited or cloned human embryos into human or animal bodies." Arguably, previous guidelines should have blocked He's research, but this clarifies the legal situation.

#### **CRISPR Could Switch Off Chronic Pain Without Opioids**

Emily Mullin, Future Human | 03.10.2021

Researchers have identified genetic mutations that block the transmission of pain signals to the brain. Gene-editing with CRISPR successfully repressed a relevant gene and increased pain tolerance in mice, with effects lasting up to 44 weeks. Experiments in monkeys are planned and human clinical trials may be a few years away.

## Viral vector unlikely to be cause of leukemia in gene therapy patient

Jocelyn Kaiser, Science | 03.10.2021

Bluebird Bio, which halted its two sickle cell disease trials in February, and independent researchers report that the gene where inserted DNA landed, VAMP4, plays no known role in cancer and did not turn on or off any nearby genes. The company is in discussions with FDA about lifting the trial hold.

#### **GENOMICS**

#### Criminal defendants still cite a 'gene for violence.' It doesn't exist.

Nita Farahany and Gene E. Robinson, The Washington Post | 03.18.2021

It would greatly benefit our criminal justice system — and justice itself — to stamp out the outmoded idea that the so-called "warrior gene" (a variant of the MAOA gene) renders a person "hard-wired to kill." The New Mexico Supreme Court missed a chance last month to end the controversy — and affirm scientific consensus.

#### **Human Genetics Needs an Antiracism Plan**

Lea K. Davis, Scientific American | 03.17.2021

The field began in part to support white supremacy—and it hasn't fully shaken off that shameful heritage. Today, the white perspective threatens to turn precision medicine into a tool for structural violence, again. Human genetics needs an antiracism plan *now*, otherwise, we must admit we plan to be racist.

#### **ASSISTED REPRODUCTION**

## World at 'peak twin' as birth rates reach historic high, study finds

lan Sample, The Guardian | 03.11.2021

Researchers analysed records from more than 100 countries and found a substantial rise in twin birthrates since the 1980s, with one in 42 people now born a twin, equivalent to 1.6 million children a year. According to the study, the global twin birthrate has risen by one-third, on average, over the past 40 years.

# Parents Are Demanding Surrogates Who Won't Get the COVID Vaccine

Carter Sherman, Vice | 03.09.2021

Surrogacy agencies have been fielding so many requests for unvaccinated women that several have started specifically matching vaccine-averse prospective parents with surrogates who are willing to stay unvaccinated.

#### STEM CELLS

### UC Davis: First clinical trial of stem cells to treat spina bifida

David Jensen, Capitol Weekly | 03.10.2021

Backed by \$17 million in cash from California's stem cell agency, researchers at UC Davis this month are launching "the world's first clinical trial using stem cells to treat spina bifida before the child is born." A stem cell "patch" will be placed over the exposed spinal cord, hopefully allowing the stem cells to

regenerate and protect the spinal cord.

#### **VARIOUS**

#### Your Face Is Not Your Own

Kashmir Hill, The New York Times | 03.18.2021

When a secretive start-up scraped the internet to build a facial-recognition tool, it tested a legal and ethical limit — and blew the future of privacy in America wide open.

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